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10/535,700	01/27/2006	Hirokazu Ooe	2936-0242PUS1	7918
2292 7590 03/11/2011 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER HECKERT, JASON MARK				
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/535,700  
Filing Date: January 27, 2006  
Appellant(s): OOE ET AL.

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Charles Gorenstein  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 1/13/2010 appealing from the Office action mailed 8/31/2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:  
2, 4-24.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

JP 2001-276484, October 2001, Ando et al.

CA 2242101, February 2000, Walsh

JP 2000-343081, December 2001, Sakamoto et al.

US 2002/0157962, October 2002, Robey et al.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 10-13, 17-20, 24 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001-276484 ('484) in view of Walsh (CA 2242101). '484 clearly teaches a washing appliance containing an ion elution unit that generates silver ions between a pair of electrodes 121 and 122. Flow rate is detected by sensor 210. Power is provided by a DC power supply and controlled by a control unit 240 which includes a

microcomputer. Voltage is supplied after detecting flow. Current and voltage are controlled by the control unit, which is capable of delivering a constant voltage or a variable voltage to water flowing through the ion unit. The DC power source is considered to be a drive circuit. The water flows through a feed valve 110. Thus, '484 teaches the limitations of claim 2 except for reversing polarities with an application halt period. Walsh discloses an ion elution unit for antimicrobial purposes comprising two electrodes 24 and 26. Current level to the electrodes can be modified by a variable resistor and appropriate control (page 4). Additionally, a timing mechanism can activate the cell for a period time, perform a halt period, and further reverse the polarity of the electrodes (page 4 and claim 16). This allows the unit to provide effective biocidal concentrations of ions without discoloration or damage to the appliance. It would have been obvious at the time of invention to modify '484 and include the functionality of reversing polarities with a halt period, as taught by Walsh, in order to purify the water stream. Claims 11-13 are regarded as intended use, however '484 also teaches utilizing control to apply power based on the measurements of the flow sensor 210.

In regards to claim 4, both '484 and Walsh disclose adjusting current to an appropriate level. Voltage modulation is well known to affect current by Ohm's Law. In regards to claim 11, Walsh teaches control of the ion dissolution rate. Furthermore, the ion dissolution rate is related to the current, which both Walsh and '484 disclose as controllable parameter. '484 also teaches flow rate monitoring.

Claims 5-9, 14-16, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over '484 in view of Walsh and further in view of Robey OR JP 2000-

343081 ('081). Neither '484 nor Walsh disclose including a current detector. Measuring electrical characteristics of an ion elution device is common in the art. Robey discloses including current sensing means (claim 16) which is connected to control means. The device is capable of detecting overload situations. '081 discloses including a voltage detection means to detect abnormalities in an ion system. When an abnormality is detected, the user can be notified by a buzzer (see abstract). Claims 5-9, 14-16 include language which is regarded as intended use of the apparatus. The manner in which an apparatus operates is not germane to the issue of patentability of the apparatus itself.

*Ex parte Wikdahl* 10 USPQ 2d 1546, 1548 (BPAI 1989); *Ex parte McCullough* 7 USPQ 2d 1889, 1891 (BPAI 1988); *In re Finsterwalder* 168 USPQ 530 (CCPA 1971); *In re Casey* 152 USPQ 235, 238 (CCPA 1967). Furthermore, apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.* 15 USPQ 2d 1525 (Fed. Cir. 1990); *Demaco Corp. v. F. Von Langsdorf Licensing Ltd.* 7 USPQ 2d 1222, 1224-1225 (Fed. Cir. 1988). The combination of '484 and Walsh obviate the structures that allow polarities to be reversed in an ion elution device. Robey and '081 obviate including the structures that allow for current or voltage detection as means to detect abnormalities. The combination of said prior art is believed to be capable of operating in the same manner as the appellant's invention, as it contains the same structures including control means and programmable microcomputers. Additionally, both Walsh and '484 disclose variable current and controlling dissolution rate based on such parameters. Additionally Walsh teaches variable time periods and application halt periods. Thus, the combination of the above

references would be full capable of controlling time periods based on various measurements, such as current and voltage. It would have been obvious at the time of invention to modify '484 in view of Walsh, as stated above, and include means to detect electrical characteristics, such as current or voltage, as disclosed by Robey and '081, in order to detect abnormalities.

#### **(10) Response to Argument**

First the appellant argues that '484 and Walsh are not combinable under 35 USC 103(a). Examiner disagrees. Both disclosures relate to the art of water treatment with ion elution devices. The apparatus in which the devices are contained are not even germane to the instant application until claim 17. Furthermore, the examiner finds that the benefits disclosed by Walsh would be useful in a washing machine, as practicing the methods of Walsh – complete with an application halt period and reversal of polarities – would provide the expected benefits disclosed by Walsh. Those benefits include producing biocidal concentrations of ions and preventing discoloration of equipment. Appellant also argues that the halt period with polarity reversal is optional. This is not found to be a persuasive argument for withdrawing the rejection. The method is still taught by the prior art, and one of ordinary skill at the time of invention was aware of reversing polarities with an application halt period in an ion elution device.

In regards to the adjustability of the length of the voltage application periods, Walsh discloses that a timing mechanism can be used to control the on and off periods along with reversal of polarity. The examiner considers such a mechanism to be capable of adjusting time periods. Furthermore, a controller is taught. A controller

combined with the timing mechanism is considered to be fully capable of performing as claimed. Examiner reminds the appellant that, the manner in which an apparatus operates is not germane to the issue of patentability of the apparatus itself. *Ex parte Wikdahl* 10 USPQ 2d 1546, 1548 (BPAI 1989); *Ex parte McCullough* 7 USPQ 2d 1889, 1891 (BPAI 1988); *In re Finsterwalder* 168 USPQ 530 (CCPA 1971); *In re Casey* 152 USPQ 235, 238 (CCPA 1967). Furthermore, apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.* 15 USPQ 2d 1525 (Fed. Cir. 1990); *Demaco Corp. v. F. Von Langsdorf Licensing Ltd.* 7 USPQ 2d 1222, 1224-1225 (Fed. Cir. 1988). The appellant does not even state what devices permit said operation, and if they are any different than the timing mechanism and controller of Walsh or '484.

In regards to claim 11, the examiner maintains the argument that said claims are intended use.

Claim 5 is addressed as being unpatentable in further view of Robey or '081. Both of these references teach current detection. Examiner maintains that these claims include language that points to the intended use of the devices, not patentably distinct structures of an apparatus.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



/Jason Heckert/

Examiner, Art Unit 1711

Conferees:

/Michael Barr/

Supervisory Patent Examiner, Art Unit 1711

/SHRIVE BECK/

Supervisory Patent Examiner, Art Unit 1700